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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/780,511	02/17/2004	Jumpei Kura	275835US6	1369
22850 7590 10/01/2007 OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER DANIELSEN, NATHAN ANDREW	
			ART UNIT 2627	PAPER NUMBER
			NOTIFICATION DATE 10/01/2007	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/780,511	<b>Applicant(s)</b> KURA ET AL.	
	<b>Examiner</b> Nathan Danielsen	<b>Art Unit</b> 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 July 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

1. Claims 1-24 are pending.

***Allowable Subject Matter***

2. The indicated allowability of claims 3-6, 10-13, and 18-21 is withdrawn in view of the newly discovered reference(s) to Miyairi (US Patent 5,018,155). Rejections based on the newly cited reference(s) follow.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-6, 8-13, 15-21, 23, and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Miyairi.

Regarding claims 1, 8, and 16: An information processing apparatus including:

a laser (element 1 in figure 1);

a laser driving circuit for supplying a drive current to said laser (element 4 in figure 1);

a radio frequency current superimposing means for generating a radio frequency current and superimposing said radio frequency current on said drive current (element 20 in figure 1);

a lens system for reading and recording information signal for a recording medium (col. 6, lines 58-63); and

servo control means for controlling said lens system (col. 6, lines 58-63);

said information processing apparatus comprising:

current monitoring means for monitoring said drive current (element 11 in figure 1);

optical detection means for detecting an optical output of said laser (elements 2 and 5 in figure 1);

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amplitude control means for controlling an amplitude of said radio frequency current to be superimposed on said drive current (elements 7 and 11 in figure 1);

optical output control means for controlling said laser driving circuit to make said optical output of said laser at a constant level (element 3 in figure 1); and

control means for controlling said amplitude of said radio frequency current on the basis of current values of said drive current obtained by said current monitoring means at a plurality of said amplitudes of said radio frequency current obtained by said amplitude control means or detection values of said optical output of said laser obtained by said optical detection means at said plurality of said amplitudes of said radio frequency current obtained by said amplitude control means (element 11 in figure 1 executing the method of figure 2).

Regarding claims 2, 9, and 17, Miyairi discloses where the plurality of said amplitudes of said radio frequency current are defined as two values including zero and non-zero (figures 4-6 and col. 6, lines 17-44).

Regarding claims 3, 10, and 18, Miyairi discloses where:

said amplitude control means controls whether said radio frequency current is superimposed on said driving current or not (figures 4-6 and col. 6, lines 17-44), and

said control means obtains a difference between said driving current monitored when said radio frequency current is superimposed on said driving current and said driving current monitored when said radio frequency current is not superimposed on said driving current (" $I_1 - I_3$ " in figure 6 and col. 6, lines 17-44), and controls said amplitude of said radio frequency current on the basis of said difference under the condition that said optical output of said laser is controlled maintained at said constant level (col. 6, lines 17-44).

Regarding claims 4, 11, and 19, Miyairi discloses where said control means controls said amplitude of said radio frequency current so as to make constant said difference between said driving current monitored when said radio frequency current is superimposed on said driving current and said

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driving current monitored when said radio frequency current is not superimposed on said driving current (col. 6, lines 17-44).

Regarding claims 5, 12, and 20, Miyairi discloses where:

said amplitude control means controls whether said radio frequency current is superimposed on said driving current or not (col. 6, lines 17-44), and

said control means obtains a difference between said optical output detected when said radio frequency current is superimposed on said driving current and said optical output detected when said radio frequency current is not superimposed on said driving current (col. 6, lines 17-44), and controls said amplitude of said radio frequency current on the basis of said difference under the condition that said drive current of said laser is maintained at a constant level (col. 6, lines 17-44).

Regarding claims 6, 13, and 21, Miyairi discloses where said control means controls said amplitude of said radio frequency current so as to make constant said difference between said optical output detected when said radio frequency current is superimposed on said driving current and said optical output detected when said radio frequency current is not superimposed on said driving current (col. 6, lines 17-44).

Regarding claims 15 and 23, Miyairi discloses where said amplitude of said radio frequency current is controlled while said optical output control means controls said laser driving circuit to make said optical output of said laser at said constant level which is not greater than a reproduction power necessary for reading said information signal (col. 6, lines 45-49).

Regarding claim 24, Miyairi discloses where said amplitude control means and said control means control said amplitude of said radio frequency current when said reading and recording said information signal is not executed (col. 4, lines 50-65).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 7, 14 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyairi, in view of Koike et al (US Patent 5,625,616; hereinafter Koike).

Regarding claims 7, 14, and 22, Miyairi discloses everything claimed, as applied to claims 1, 8, and 16. However, Miyairi fails to disclose temperature monitoring means and the details thereof.

In the same field of endeavor, Koike discloses where said apparatuses further comprises:

temperature monitoring means for monitoring a temperature related to said laser (col. 5, line 45 through col. 6, line 22),

wherein said control means controls the operation of the apparatuses when a change in said temperature satisfies a predetermined condition (col. 5, line 45 through col. 6, line 22).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the apparatus of Nagara with that of Koike, for the purpose of performing electronic deterioration monitoring of a laser diode (col. 1, lines 53-65).

#### ***Response to Arguments***

7. Applicant's arguments, see pages 13 and 14, filed 19 July 2007, with respect to the rejection(s) of claim(s) 1, 8, and 16 under 35 USC § 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Miyairi and Koike, as shown above.

#### ***Closing Remarks/Comments***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan Danielsen whose telephone number is (571) 272-4248. The examiner can normally be reached on Monday-Friday, 9:00 AM - 5:00 PM Eastern Time.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on (571) 272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nathan Danielsen  
09/20/2007

/William Korzuch/  
SPE, Art Unit 2627